

ABSTRACT

METHOD OF AUTOMATICALLY DEBONDING, PROCESSING, AND HANDLING FRAGILE SLIDER ROWS

[0038] An automatic thermal debonding process removes slider rows from a stainless steel processing fixture. The method uses a bimodal pitch adjustment and a mechanical row detainment mechanism to remove the rows from the fixture. The process allows full control of all critical process parameters such as accurate and repeatable row placement; controlled temperature and heat flow; controlled mechanical removal pressure; temporal control and variability; clean and contaminant-free working area; and full electrostatic discharge grounding and compatible materials. The bimodal pitch adjustment feature allows for continual, high-speed removal of the ceramic rows from the fixture after an automated heating cycle is complete. As the rows are removed, they are accurately placed into the detainment mechanism for the next process step.